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53. (Currently Amended) The CA set method of claim 47 wherein the controller accepts feedback signals and, wherein, the simulation information is useable by the simulator to generate simulation feedback signals indicating simulation events.

54. (Currently Amended) The CA set method of claim 47 wherein the simulation information is useable by the simulator to generate visual representations of resources cycling through activities.

55. (Currently Amended) The CA set method of claim 54 wherein the controller accepts feedback signals and, wherein, the simulation information is also useable by the simulator to generate simulation feedback signals indicating simulation events

Remarks

In the interest of clarity, the paragraph numbers hereafter match the paragraph numbers in the Office Action.

As an initial matter Applicant notes that at the end of paragraph 5 in the Office Action the Office Action references US patent No. 6,721,681 and specifically claims 13 and 16 in the context of a double patenting rejection. Applicant believes that the reference to the '681 patent was in error and that the Office Action should have referenced US patent No. 6,618,856 which would be consistent with the beginning part of paragraph 5. Applicant has proceeded based on the above understanding.

In addition, Applicant has amended some of the claims as indicated above because some of the CA set type dependent claims were mistakenly written as method type claims – the amendments change the dependent claims to CA set type claims as

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appropriate.

1-3. The Office Action rejected each of claims 1, 23, 35 and 47 and claims that depend there from as claiming non-statutory subject matter. Applicant respectfully traverses this rejection.

As stated in the Office Action, a claimed invention as a whole must accomplish a practical application – i.e., the invention must produce a “useful, concrete and tangible result”. With respect to claim 1, among other things, claim 21 requires the steps of using at least one instance of a control assembly to generate code (e.g., program code) for controlling a resource (e.g., a machine) and using the control assembly instance to also generate simulation information. Each of code for controlling a resource and simulation information is a useful, concrete and tangible result. To this end, as taught in the current specification, code can be used by a controller to control the resource associated with the generated code (see paragraph 68) and can also be used to drive a resource simulator (see paragraph 88) (i.e., the actual code for controlling the resource can be used to drive the simulator). Similarly, as taught in the current specification, simulation information is useable to simulate operation of an associated resource so that resource operation can be observed prior to configuring the resource along with other resources (see paragraphs 75-77, 84, 542-545 and 565). A control program for controlling a resource clearly is a useful and tangible result. Similarly, simulation information that is useable to simulate operation of a resource is a useful and tangible result.

One way to determine if the code that results from the claim 1 compilation comprises a useful and tangible result is to consider whether or not a controller could control a resource without code or a program to control the resource. Clearly a controller requires code to control a resource and therefore the code is useful. Similarly, consider whether or not resource operation could be simulated without having any simulation information associated with the resource. Again, it is clear that a

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resource could not be simulated without having knowledge about simulation information associated with the resource.

Claim 35 has limitations that are similar to the limitations of claim 1 and specifically calls for a processor that generates both code for controlling a resource and simulation information associated with the resource and therefore, like claim 1, accomplishes a useful and tangible result.

For at least the above reasons Applicant requests that the rejections of claims 1 and 35 and of the claims that depend there from be withdrawn.

Turning to claim 27, claim 27 claims a control assembly data construct that in and of itself is a useful and tangible result. To this end, the claimed control assembly is useable by a processor to generate control code for controlling a resource and to generate simulation information that is useable to simulate a resource. Here, without a control assembly that includes a specification that is compilable to generate the control code and a specification that is useable to generate simulation information, a processor could not generate resource specific code and resource specific simulation information and therefore, the control assembly in and of itself is a useful and tangible result and has a practical application (i.e., is useable to generate control code for controlling an associated resource and is useable to generate simulation information for simulating operation of the associated resource).

Claim 47 includes limitations that are similar to the limitations in claim 23 and specifically calls for a control assembly that includes logic useable to generate control code for a resource type and simulation material useable to generate simulation information for an associated resource and therefore, like claim 23, accomplishes a practical application.

For at least the above reasons Applicant requests that the rejections of claims 23 and 47 and of the claims that depend there from be withdrawn.

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4-5. The Office Action rejected each of claims 1, 23 and 47 under the doctrine of obviousness-type double patenting as unpatentable over claims 13 and 16 of US patent No. 6,681,856. Applicant has filed a terminal disclaimer herewith to overcome the double patenting rejection.

6. Applicant requests that Applicant's previously submitted statements in the May 4, 2006 Office Action response be considered at this time.

Applicant has introduced no new matter in making the above amendments and remarks. In view of the above remarks, Applicant believes claims 1-55 of the present application recite patentable subject matter and allowance of the same is requested. No fee in addition to the fees already authorized in this and accompanying documentation is believed to be required to enter this amendment, however, if an additional fee is required, please charge Deposit Account No. 17-0055 in the amount of the fee.

Respectfully submitted,

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